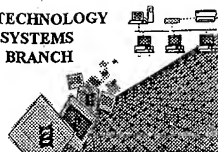


BIOTECHNOLOGY  
SYSTEMS  
BRANCH



**RAW SEQUENCE LISTING**  
**ERROR REPORT**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/635,265A  
Source: IFWO  
Date Processed by STIC: 1/13/04

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 703-308-4212; FAX: 703-308-4221

Effective 12/13/03: TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER VERSION 4.1 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chr41note.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail. Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/efb/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry directly to (EFFECTIVE 12/01/03):  
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 10/08/03

## Raw Sequence Listing Error Summary

<u>ERROR DETECTED</u>	<u>SUGGESTED CORRECTION</u>	SERIAL NUMBER: <u>10/635,265A</u>
ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE		
1 <u>Wrapped Nucleics</u> <u>Wrapped Aminos</u>	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."	
2 <u>Invalid Line Length</u>	The rules require that a line not exceed 72 characters in length. This includes white spaces.	
3 <u>Misaligned Amino</u> <u>Numbering</u>	The numbering under each 5 <sup>th</sup> amino acid is misaligned. Do not use tab codes between numbers; use <b>space characters</b> , instead.	
4 <u>Non-ASCII</u>	The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.	
5 <u>Variable Length</u>	Sequence(s) <u>3</u> contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.	
6 <u>PatentIn 2.0</u> <u>"bug"</u>	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.	
7 <u>Skipped Sequences</u> <u>(OLD RULES)</u>	Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION: SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped  Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.	
8 <u>Skipped Sequences</u> <u>(NEW RULES)</u>	Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence. <210> sequence id number <400> sequence id number 000	
9 <u>Use of n's or Xaa's</u> <u>(NEW RULES)</u>	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.	
10 <u>Invalid &lt;213&gt;</u> <u>Response</u>	Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence	
11 <u>Use of &lt;220&gt;</u>	Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 00/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)	
12 <u>PatentIn 2.0</u> <u>"bug"</u>	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.	
13 <u>Misuse of n/Xaa</u>	"n" can only represent a single <u>nucleotide</u> ; "Xaa" can only represent a single <u>amino acid</u>	



IFWO

## RAW SEQUENCE LISTING

DATE: 01/13/2004

PATENT APPLICATION: US/10/635,265A

TIME: 15:17:21

Input Set : A:\180-158-2 seq listing.ST25rev1.txt

Output Set: N:\CRF4\01132004\J635265A.raw

3 <110> APPLICANT: Duke University  
 4 York, John D  
 6 <120> TITLE OF INVENTION: NOVEL TARGETS FOR LITHIUM THERAPY AND TOXICITY TREATMENT  
 8 <130> FILE REFERENCE: 180/158/2  
 C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/635,265A  
 C--> 10 <141> CURRENT FILING DATE: 2003-08-06  
 10 <150> PRIOR APPLICATION NUMBER: US 60/401480  
 11 <151> PRIOR FILING DATE: 2002-08-06  
 13 <160> NUMBER OF SEQ ID NOS: 24  
 15 <170> SOFTWARE: PatentIn version 3.2  
 17 <210> SEQ ID NO: 1  
 18 <211> LENGTH: 2113  
 19 <212> TYPE: DNA  
 20 <213> ORGANISM: Homo sapiens  
 23 <220> FEATURE:  
 24 <221> NAME/KEY: mRNA  
 25 <222> LOCATION: (1)..(2113)  
 27 <400> SEQUENCE: 1  
 28 ggaattcggc acgagaagct cggctactgga cacaacgagg gacctgggct tacgataacg 60  
 30 cgcttttgct cctcctgaag tgtctttggt ccaacgttgt tccagagtgt accatggcctt 120  
 32 ccagtaaacac tgtgttgatg cggttggtag cctccgcata ttctattgct caaaaggcag 180  
 34 gaatgatagt cagacgtggt attgtctgaag gagacctggg tattgtggag aagacctgtg 240  
 36 caacagacct gcagacacaa gctgaccgat tggcacagat gagcatatgt tcttcattgg 300  
 38 cccggaaatt ccccaaaactc acaattatag gggaaaggga tctgccttct gaggaagtgg 360  
 40 atcaagagct gattgaagac agtcagtggg aagaaatact gaagcaacca tgcccatcgc 420  
 42 agtacagtgc tattaaagaa gaagatctcg tggctgggtg tgatcctctg tagtgaacca 480  
 44 aggaatatata cgaaggtctt ctgtgacaatg taacagtctt tattggaatt gcttatgaag 540  
 46 gaaaagccat agcaggagtt attaaccagc catattacaa ctatgaggca ggaccagatg 600  
 48 ctgtgttggg gaggacaatc tggggagttt taggtttagg cgctcttggg tticagctga 660  
 50 aagaagtcctc tgctgggaaa cacattatca caactactcg atcccatagc aacaagtgtg 720  
 52 ttactgactg tgtgtgtgct atgaaccccg atgctgtgct gcgagttaga ggagcaggaa 780  
 54 ataagattat tcagctgatt gaaggcaaa cctctgtctta tgtatttgca agtctctggt 840  
 56 gtaagaagtg ggatacttgt gctccagaag ttattttaca tgctgtggga ggcaagttaa 900  
 58 ccgatataca tgggaattgt cttcagatcc acaaggatgt gaagcatatg aactctgcag 960  
 60 gagtctggc cacaactgag aattatgact actatgcaag ccgagttoca gaatcatta 1020  
 62 aaaatgcact tgttccctaa aggaagttt catttggcgc ggcgcggtgg ctcatgcccgt 1080  
 64 taatccagc actttgggag gccgaggcag gtggatcact tgagctcagg agtttgagac 1140  
 66 cagctgggg aatatcgtga gaccocatct ctacaaaaat acaaatatac tgggcatcct 1200  
 68 gtcatgcgcc tgtcatccca gctacttgag aggtggaagc agaagaatct cttgagcccg 1260  
 70 gaaggcggag gttgcagtga gctgagatcg tgccactgca ctcagacctg agtgacagga 1320  
 72 gtttaagccct gtctcagaaa aaaaaacata acccaaaaag tacttaagt ttcatattac 1380  
 74 tactaggaaa agactgtggt ctcaaatat acattttaag attaatggg tagaattaga 1440  
 76 gttccacctt tatcattggt gacagtgatt tatatttagt tataatttta gaataaaaa 1500

PP. 3, 6-9  
 Does Not Comply  
 Corrected Diskette Needed

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/635,265A

DATE: 01/13/2004

TIME: 15:17:21

Input Set : A:\180-158-2 seq listing.ST25rev1.txt

Output Set: N:\CRF4\01132004\J635265A.raw

```

78 taactaaata atttaacttg attaatacca ttactcaacc tgacaattga gttggagact 1560
80 tataaactca ttatggttat catgtgtttt cctgttgaat gtgaagaagt gagaaaacat 1620
82 ttgccaatga cagtttagcg tgcacactga ccattcactg ataaaccaga ttctgcctga 1680
84 atctgaaggg attgcttgta gcatagggtt tagtggcgtg atcttgggtc actgcggccc 1740
86 gcttcggggg ttcatgcttc tcctgcctag ctccgggtag ctgggactgc agcacggccc 1800
88 acgctggtaa ttttttgtat gatggtgaga agttttcacc gtgttgccag gatggcttat 1860
90 cctgacatcg tgatctgtat gcctcggatc ccaaagtga tgggatgaca gctgtgagcc 1920
92 accgcacttg gcttaaacca gatttcttta gggcacattt ttttgaatc tcaactgttt 1980
94 tttcacagta attttaaaaa cgttttatcc aattagaata tatatgatgt tattatatat 2040
96 gcttatgaaa cagattttat agaaaagttt tttttaata aattatttaa tccctaaaaa 2100
98 aaaaaaaaaa aaa 2113

101 <210> SEQ ID NO: 2
102 <211> LENGTH: 308
103 <212> TYPE: PRT
104 <213> ORGANISM: Homo sapiens
107 <220> FEATURE:
108 <221> NAME/KEY: PEPTIDE
109 <222> LOCATION: (1)..(308)
111 <400> SEQUENCE: 2
113 Met Ala Ser Ser Asn Thr Val Leu Met Arg Leu Val Ala Ser Ala Tyr
114 1 5 10 15
117 Ser Ile Ala Gln Lys Ala Gly Met Ile Val Arg Arg Val Ile Ala Glu
118 20 25 30
121 Gly Asp Leu Gly Ile Val Glu Lys Thr Cys Ala Thr Asp Leu Gln Thr
122 35 40 45
125 Lys Ala Asp Arg Leu Ala Gln Met Ser Ile Cys Ser Ser Leu Ala Arg
126 50 55 60
129 Lys Phe Pro Lys Leu Thr Ile Ile Gly Glu Glu Asp Leu Pro Ser Glu
130 65 70 75 80
133 Glu Val Asp Gln Glu Leu Ile Glu Asp Ser Gln Trp Glu Glu Ile Leu
134 85 90 95
137 Lys Gln Pro Cys Pro Ser Gln Tyr Ser Ala Ile Lys Glu Glu Asp Leu
138 100 105 110
141 Val Val Trp Val Asp Pro Leu Asp Gly Thr Lys Glu Tyr Thr Glu Gly
142 115 120 125
145 Leu Leu Asp Asn Val Thr Val Leu Ile Gly Ile Ala Tyr Glu Gly Lys
146 130 135 140
149 Ala Ile Ala Gly Val Ile Asn Gln Pro Tyr Tyr Asn Tyr Glu Ala Gly
150 145 150 155 160
153 Pro Asp Ala Val Leu Gly Arg Thr Ile Trp Gly Val Leu Gly Leu Gly
154 165 170 175
157 Ala Phe Gly Phe Gln Leu Lys Glu Val Pro Ala Gly Lys His Ile Ile
158 180 185 190
161 Thr Thr Thr Arg Ser His Ser Asn Lys Leu Val Thr Asp Cys Val Ala
162 195 200 205
165 Ala Met Asn Pro Asp Ala Val Leu Arg Val Gly Gly Ala Gly Asn Lys
166 210 215 220
169 Ile Ile Gln Leu Ile Glu Gly Lys Ala Ser Ala Tyr Val Phe Ala Ser
170 225 230 235 240

```

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/635,265A

DATE: 01/13/2004

TIME: 15:17:21

Input Set : A:\180-158-2 seq listing.ST25rev1.txt

Output Set: N:\CRF4\01132004\J635265A.raw

173 Pro Gly Cys Lys Lys Trp Asp Thr Cys Ala Pro Glu Val Ile Leu His  
174                   245                   250                   255  
177 Ala Val Gly Gly Lys Leu Thr Asp Ile His Gly Asn Val. Leu Gln Tyr  
178                   260                   265                   270  
181 His Lys Asp Val Lys His Met Asn Ser Ala Gly Val Leu Ala Thr Leu  
182                   275                   280                   285  
185 Arg Asn Tyr Asp Tyr Tyr Ala Ser Arg Val Pro Glu Ser Ile Lys Asn  
186                   290                   295                   300  
189 Ala Leu Val Pro  
190 305  
193 <210> SEQ ID NO: 3  
194 <211> LENGTH: 27  
195 <212> TYPE: PRT  
196 <213> ORGANISM: Artificial  
198 <220> FEATURE:  
199 <223> OTHER INFORMATION: Li-sensitive sequence uniting motif.  
202 <220> FEATURE:  
203 <221> NAME/KEY: MISC\_FEATURE *variable length not permitted. See item 5 on*  
204 <222> LOCATION: (2)..(2) *Even*  
205 <223> OTHER INFORMATION: X is any number of integers of any amino acid. *summary*  
207 <220> FEATURE: *sheet.*  
208 <221> NAME/KEY: MISC\_FEATURE  
209 <222> LOCATION: (5)..(5)  
210 <223> OTHER INFORMATION: X is any number of integers of any amino acid.  
212 <220> FEATURE:  
213 <221> NAME/KEY: MISC\_FEATURE  
214 <222> LOCATION: (8)..(8)  
215 <223> OTHER INFORMATION: X is isoleucine or an amino acid that can be conservatively  
216       substituted in place thereof.  
218 <220> FEATURE:  
219 <221> NAME/KEY: MISC\_FEATURE  
220 <222> LOCATION: (10)..(10)  
221 <223> OTHER INFORMATION: X is glycine or an amino acid that can be conservatively  
222       substituted in place thereof.  
224 <220> FEATURE:  
225 <221> NAME/KEY: MISC\_FEATURE  
226 <222> LOCATION: (11)..(11)  
227 <223> OTHER INFORMATION: X is threonine or an amino acid that can be conservatively  
228       substituted in place thereof.  
230 <220> FEATURE:  
231 <221> NAME/KEY: MISC\_FEATURE  
232 <222> LOCATION: (12)..(12)  
233 <223> OTHER INFORMATION: X is any number of integers of any amino acid.  
235 <220> FEATURE:  
236 <221> NAME/KEY: MISC\_FEATURE  
237 <222> LOCATION: (13)..(13)  
238 <223> OTHER INFORMATION: X is tryptophan or an amino acid that can be conservatively  
239       substituted in place thereof.  
241 <220> FEATURE:

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/635,265A

DATE: 01/13/2004

TIME: 15:17:21

Input Set : A:\180-158-2 seq listing.ST25rev1.txt

Output Set: N:\CRF4\01132004\J635265A.raw

```

242 <221> NAME/KEY: MISC_FEATURE
243 <222> LOCATION: (14)..(14)
244 <223> OTHER INFORMATION: X is aspartic acid or an amino acid that can be
conservatively
245     substituted in place thereof.
247 <220> FEATURE:
248 <221> NAME/KEY: MISC_FEATURE
249 <222> LOCATION: (15)..(25)
250 <223> OTHER INFORMATION: X is any amino acid.
252 <400> SEQUENCE: 3
W--> 254 Asp Xaa Glu Glu Xaa Asp Pro Xaa Asp Xaa Xaa Xaa Xaa Xaa Xaa Xaa
255 1           5           10           15
258 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Gly
259           20           25
262 <210> SEQ ID NO: 4
263 <211> LENGTH: 290
264 <212> TYPE: PRT
265 <213> ORGANISM: Artificial
267 <220> FEATURE:
268 <223> OTHER INFORMATION: Li-sensitive sequence uniting motif for Impasel.
271 <220> FEATURE:
272 <221> NAME/KEY: MISC_FEATURE
273 <222> LOCATION: (1)..(46)
274 <223> OTHER INFORMATION: X is any amino acid.
276 <220> FEATURE:
277 <221> NAME/KEY: MISC_FEATURE
278 <222> LOCATION: (48)..(69)
279 <223> OTHER INFORMATION: X is any amino acid.
281 <220> FEATURE:
282 <221> NAME/KEY: MISC_FEATURE
283 <222> LOCATION: (72)..(89)
284 <223> OTHER INFORMATION: X is any amino acid.
286 <220> FEATURE:
287 <221> NAME/KEY: MISC_FEATURE
288 <222> LOCATION: (96)..(218)
289 <223> OTHER INFORMATION: X is any amino acid.
291 <220> FEATURE:
292 <221> NAME/KEY: MISC_FEATURE
293 <222> LOCATION: (221)..(231)
294 <223> OTHER INFORMATION: X is any amino acid.
296 <220> FEATURE:
297 <221> NAME/KEY: MISC_FEATURE
298 <222> LOCATION: (234)..(290)
299 <223> OTHER INFORMATION: X is any amino acid.
301 <400> SEQUENCE: 4
W--> 303 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
304 1           5           10           15
307 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
308           20           25           30
311 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp Xaa

```

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/635,265A

DATE: 01/13/2004

TIME: 15:17:21

Input Set : A:\180-158-2 seq listing.ST25rev1.txt

Output Set: N:\CRF4\01132004\J635265A.raw

```

312          35          40          45
315 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
316      50          55          60
319 Xaa Xaa Xaa Xaa Xaa Xaa Glu Glu Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
320 65          70          75          80
323 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp Pro Ile Asp Gly Thr Xaa
324          85          90          95
327 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
328      100          105          110
331 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
332      115          120          125
335 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
336      130          135          140
339 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
340 145          150          155          160
343 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
344          165          170          175
347 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
348          180          185          190
351 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
352      195          200          205
355 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Trp Asp Xaa Xaa Xaa Xaa
356      210          215          220
359 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Gly Xaa Xaa Xaa Xaa Xaa Xaa
360 225          230          235          240
363 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
364          245          250          255
367 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
368          260          265          270
371 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
372          275          280          285
375 Xaa Xaa
376      290
379 <210> SEQ ID NO: 5
380 <211> LENGTH: 399
381 <212> TYPE: PRT
382 <213> ORGANISM: Artificial
384 <220> FEATURE:
385 <223> OTHER INFORMATION: Li-sensitive sequence uniting motif for lptase.
388 <220> FEATURE:
389 <221> NAME/KEY: MISC FEATURE
390 <222> LOCATION: (1)..(53)
391 <223> OTHER INFORMATION: X is any amino acid.
393 <220> FEATURE:
394 <221> NAME/KEY: MISC FEATURE
395 <222> LOCATION: (55)..(78)
396 <223> OTHER INFORMATION: X is any amino acid.
398 <220> FEATURE:
399 <221> NAME/KEY: MISC FEATURE

```

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/635,265A

DATE: 01/13/2004  
TIME: 15:17:22

Input Set : A:\180-158-2 seq listing.ST25rev1.txt  
Output Set: N:\CRF4\01132004\J635265A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; Xaa Pos. ~~2,5,8,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25~~  
Seq#:4; Xaa Pos. ~~1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22~~  
Seq#:4; Xaa Pos. ~~23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41~~  
Seq#:4; Xaa Pos. ~~42,43,44,45,46,48,49,50,51,52,53,54,55,56,57,58,59,60,61~~  
Seq#:4; Xaa Pos. ~~62,63,64,65,66,67,68,69,72,73,74,75,76,77,78,79,80,81,82~~  
Seq#:4; Xaa Pos. ~~83,84,85,86,87,88,89,96,97,98,99,100,101,102,103,104,105~~  
Seq#:4; Xaa Pos. ~~106,107,108,109,110,111,112,113,114,115,116,117,118,119~~  
Seq#:4; Xaa Pos. ~~120,121,122,123,124,125,126,127,128,129,130,131,132,133~~  
Seq#:4; Xaa Pos. ~~134,135,136,137,138,139,140,141,142,143,144,145,146,147~~  
Seq#:4; Xaa Pos. ~~148,149,150,151,152,153,154,155,156,157,158,159,160,161~~  
Seq#:4; Xaa Pos. ~~162,163,164,165,166,167,168,169,170,171,172,173,174,175~~  
Seq#:4; Xaa Pos. ~~176,177,178,179,180,181,182,183,184,185,186,187,188,189~~  
Seq#:4; Xaa Pos. ~~190,191,192,193,194,195,196,197,198,199,200,201,202,203~~  
Seq#:4; Xaa Pos. ~~204,205,206,207,208,209,210,211,212,213,214,215,216,217~~  
Seq#:4; Xaa Pos. ~~218,221,222,223,224,225,226,227,228,229,230,231,234,235~~  
Seq#:4; Xaa Pos. ~~236,237,238,239,240,241,242,243,244,245,246,247,248,249~~  
Seq#:4; Xaa Pos. ~~250,251,252,253,254,255,256,257,258,259,260,261,262,263~~  
Seq#:4; Xaa Pos. ~~264,265,266,267,268,269,270,271,272,273,274,275,276,277~~  
Seq#:4; Xaa Pos. ~~278,279,280,281,282,283,284,285,286,287,288,289,290~~  
Seq#:5; Xaa Pos. ~~1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22~~  
Seq#:5; Xaa Pos. ~~23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41~~  
Seq#:5; Xaa Pos. ~~42,43,44,45,46,47,48,49,50,51,52,53,55,56,57,58,59,60,61~~  
Seq#:5; Xaa Pos. ~~62,63,64,65,66,67,68,69,70,71,72,73,74,75,76,77,78,81,82~~  
Seq#:5; Xaa Pos. ~~83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99,100,101~~  
Seq#:5; Xaa Pos. ~~102,103,104,105,106,107,108,109,110,111,112,113,114,115~~  
Seq#:5; Xaa Pos. ~~116,117,118,119,120,121,122,123,124,125,126,127,128,129~~  
Seq#:5; Xaa Pos. ~~130,131,132,133,134,135,136,137,138,139,140,141,142,143~~  
Seq#:5; Xaa Pos. ~~144,145,146,147,148,149,150,151,152,159,160,161,162,163~~  
Seq#:5; Xaa Pos. ~~164,165,166,167,168,169,170,171,172,173,174,175,176,177~~  
Seq#:5; Xaa Pos. ~~178,179,180,181,182,183,184,185,186,187,188,189,190,191~~  
Seq#:5; Xaa Pos. ~~192,193,194,195,196,197,198,199,200,201,202,203,204,205~~  
Seq#:5; Xaa Pos. ~~206,207,208,209,210,211,212,213,214,215,216,217,218,219~~  
Seq#:5; Xaa Pos. ~~220,221,222,223,224,225,226,227,228,229,230,231,232,233~~  
Seq#:5; Xaa Pos. ~~234,235,236,237,238,239,240,241,242,243,244,245,246,247~~  
Seq#:5; Xaa Pos. ~~248,249,250,251,252,253,254,255,256,257,258,259,260,261~~  
Seq#:5; Xaa Pos. ~~262,263,264,265,266,267,268,269,270,271,272,273,274,275~~  
Seq#:5; Xaa Pos. ~~276,277,278,279,280,281,282,283,284,285,286,287,288,289~~  
Seq#:5; Xaa Pos. ~~290,291,292,293,294,295,296,297,298,299,300,301,302,303~~  
Seq#:5; Xaa Pos. ~~304,305,306,307,308,309,310,311,312,313,314,317,318,319~~  
Seq#:5; Xaa Pos. ~~320,321,322,323,324,325,326,327,330,331,332,333,334,335~~  
Seq#:5; Xaa Pos. ~~336,337,338,339,340,341,342,343,344,345,346,347,348,349~~  
Seq#:5; Xaa Pos. ~~350,351,352,353,354,355,356,357,358,359,360,361,362,363~~  
Seq#:5; Xaa Pos. ~~364,365,366,367,368,369,370,371,372,373,374,375,376,377~~  
Seq#:5; Xaa Pos. ~~378,379,380,381,382,383,384,385,386,387,388,389,390,391~~



RAW SEQUENCE LISTING ERROR SUMMARY      DATE: 01/13/2004  
PATENT APPLICATION: US/10/635,265A      TIME: 15:17:22

Input Set : A:\180-158-2 seq listing.ST25rev1.txt  
Output Set: N:\CRF4\01132004\J635265A.raw

Seq#:5; Xaa Pos. 392,393,394,395,396,397,398,399  
Seq#:6; Xaa Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22  
Seq#:6; Xaa Pos. 23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41  
Seq#:6; Xaa Pos. 42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60  
Seq#:6; Xaa Pos. 61,62,63,64,65,66,67,68,69,70,71,72,73,74,76,77,78,79,80  
Seq#:6; Xaa Pos. 81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,100,101  
Seq#:6; Xaa Pos. 102,103,104,105,106,107,108,109,110,111,112,113,114,115

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,  
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/635,265A

DATE: 01/13/2004

TIME: 15:17:22

Input Set : A:\180-158-2 seq listing.ST25rev1.txt

Output Set: N:\CRF4\01132004\J635265A.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application No

L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:254 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0

M:341 Repeated in SeqNo=3

L:303 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0

M:341 Repeated in SeqNo=4

L:420 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0

M:341 Repeated in SeqNo=5

L:561 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0

M:341 Repeated in SeqNo=6